activation means for moving the piston. WO '304 is also relied upon to disclose the use of polycarbonate for the wall of a centrifuge container "for transmitting only visible light and optimizing energy release from the light emitting source."

It is acknowledged that WO '304 does not disclose an additional UV filter "other than the polycarbonate wall of the centrifuge" to filter the UV part of the light emitted by the halogen lamp.

Lynam is relied upon to teach that polycarbonate absorbs UV light below 400 nm and the use of a UV blocker, filter or screen for protection against UV rays. In view of the foregoing, it is concluded that it would have been obvious to one of ordinary skill in the art at the time of the present invention to provide a UV filter as taught by Lynam to the halogen lamp as taught by WO '304 to remove the harmful UV light and transmit only visible light for heating the sample "which is an alternate but equivalent means for providing light for heating as taught by WO '304 for equivalent function."

Applicants respectfully traverse this rejection for the following reasons.

WO '304 discloses a method and centrifuge apparatus for separating a component, such as a fibrin monomer, from blood or plasma by centrifugation, to produce, for example, a fibrin sealant. The apparatus is provided with a heat emanating device for controlling the temperature of the blood or plasma and, particularly, for heating the blood or plasma to about 37°C prior to and during processing with thrombin or a thrombin-like enzyme. In WO '304, the blood may be preheated at relatively low rotational speeds while being subjected to a heat source which radiates energy in the visible light range. The temperature of the blood is sensed indirectly using

a formula and by measuring the temperature of the air and the temperature of the surface of the blood container. The temperature of the blood determined in this manner is fed to a control unit which controls the heat source.

Contrary to the Examiner's assertion, WO '304 does not teach the use of polycarbonate for the wall of a centrifuge container to transmit only visible light and for optimizing energy release from the light emanating source. WO '304 teaches that "the wall of the centrifuge container is chosen to be of a visible light transmissive material so that the heat is transferred effectively to the blood with minimal excess heat absorption by the container [and] medical grade plastics such as polycarbonate are preferred for this purpose." It is further indicated that "the resulting utilization of the energy release from the heat emitting device through the wall to the blood is optimal."

In any event, the inventors have discovered that while heating the blood or plasma in the manner described in WO '304 is advantageous, it can result in the degradation of proteins contained in the blood. In WO '304, heat is applied to container 10 at the initial stages of the process in order to raise the temperature of the blood or plasma to about 37°C prior to separation of plasma from the red blood cells, and halogen lamp 26 is preferably utilized to do so. Halogen lamp 26, however, may emit radiation in a wavelength range which will contact the blood or plasma in container 10 and potentially degrade key proteins therein. This wavelength range is from 190 to 400 nm which generally corresponds to the ultraviolet wavelength band of the electromagnetic spectrum.

In the present claimed invention, in order to avoid this potential degradation of blood proteins, filter 40 is provided between halogen lamp 26 and container 10, and in addition to any UV filtering that might occur if a polycarbonate material is used as the wall of the container. Filter 40 blocks all or substantially all of the radiation in the above mentioned wavelength range which is believed to be responsible for the unwanted protein degradation.

WO '304 does not teach or suggest the use of a filter disposed between the heat-emanating device and the container to filter the radiation emitted from the heat emitting device to remove substantially all radiation therefrom having a wavelength in the range of from 190 to 400 nm, as presently claimed.

In this regard, the Examiner relies upon Lynam. However, Applicants respectfully submit that Lynam does not rectify the deficiencies noted above in WO '304 and does not provide motivation to modify the teachings of WO '304 to include a filter as presently claimed.

Lynam is directed to a laminate electro-optic vehicular rearview mirror which is protected against scattering of glass or other mirror element fragments if broken or damaged in the collision while reducing the risk of laceration from contact with the front glass or other element. Lynam simply teaches that commercial polymers absorb ultraviolet radiation because they possess chromophoric groups either as regular constituents or as impurities. Lynam further teaches that, in this regard, chromophores which absorb electromagnetic radiation of a wavelength below about 400 nm are, therefore, effective screens against UV radiation, and polycarbonate, polyester and aromatic polyurethanes contain such chromophorous as a major part of their structures.

However, Lynam does not suggest modifying the apparatus taught by WO '304 to include a filter located between the heat-emitting device and the container for filtering the radiation emitted from the heat-emitting device to remove substantially all radiation therefrom having a wavelength in the range from 190 to 400 nm. Applicants respectfully submit that the rejection is based upon a hindsight modification of the teachings of the primary reference, WO '304, using Applicants' specification because only Applicants' specification provides for an apparatus including a separate filter for centrifuging blood or plasma to separate a component therefrom without degradation of protein contained in the blood or plasma, as recited in Claim 1.

In sum, while Lynam may teach that polycarbonate screens UV radiation, there is still no sugestion other than Applicants' own specification of modifying the apparatus and method of WO '304 to, as presently claimed, include, a separate filter for radiation in the 190 to 400 nm wavelength range. Accordingly, withdrawal of this rejection is requested.

Further, even assuming *arguendo* that the combination of WO '304 and Lynam renders the embodiments of the present claimed invention recited in Claims 1-9 and 16-18 *prima facie* obvious (a point Applicants do not concede), Applicants respectfully submit that the comparative data contained in the specification conclusively rebuts any such rejection. That is, referring to the data (*see*, Table 2), approximately a four fold increase in FPB or fibronopeptide B was observed in samples of fibrin solutions prepared using the presently claimed apparatus and method. Accordingly, Applicants respectfully submit that any possible *prima facie* obviousness rejection has been rebutted.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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